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| Division of Forensic Science | Amendment Designator: |
| IMPRESSION UNIT PROCEDURES MANUAL | Effective Date: 31-March-2004 |

IX ELECTROSTATIC DUST LIFTER

9.1 INTRODUCTION

Electrostatic dust lifters allow for impressions to be lifted from various surfaces and preserved for examination. The electrostatic dust lifter can be used at the crime scene as well as in the laboratory. It is used primarily to lift footwear impressions left on doors and evidence that has been stepped on.

9.2 PREPARATIONS

The unit must be adequately charged before each use and a good supply of lifting film should be stocked.

9.3 INSTRUMENTATION

There are several versions of electrostatic dust lifters manufactured by different companies. Most of the units are equipped with a convenient carrying case, capable of storing an adequate supply of lifting film, a roller, flashlight and a measuring device, for your convenience. Some units are smaller hand-held units and are just as effective.

9.4 MINIMUM STANDARDS AND CONTROLS

The electrostatic units must be sufficiently charged prior to use. The lifting film must be free of dust and other contaminants prior to use. The lifting film may be reused, but must be wiped clean prior to each use.

9.5 PROCEDURE OR ANALYSIS

- 1. Locate the impression to be lifted.
- 2. Cut a piece of lifting film that is larger than the impression.
- 3. Place the lifting film over the impression, black side down against the impression and the metalized side will face up, and ensure that the unit is properly grounded per the instructions of your particular unit.
- 4. Place the probe on the lifting film and charge the lifting film and using a roller, smooth the lifting film allowing the film to come in contact with the impression.
- 5. Turn off the unit and wait several seconds for the film to discharge. Remove the film from the evidence by lifting one end and rising to the other end, do not slide.
- 6. Photograph the impressions that are present on the lifting film to preserve the impression. Caution must be exercised when handling and packaging the lifting film to avoid destroying the dust impression.

9.6 INTERPRETATION OF RESULTS

If the impressions are faint, photography can enhance and preserve the impression using various photographic techniques.

9.7 REFERENCES

1. Footwear Impression Evidence, Bodziak, 1990, pp 101-117